

NEW SPECIES OF AUSTRALIAN TINGITIDÆ (HEMIPTERA).

BY HENRY HACKER, F.E.S.

(Plates XXXII-XXXV, and Text-figure 1.)

THE following paper adds fifteen species to the Australian Tingitid fauna, thirteen of which were collected in Queensland. Several genera, such as the Neotropica *Tigava* and the Oriental *Urentius*, are here recorded from Australia, and two new genera are proposed. With two exceptions, all the types have been deposited in the Queensland Museum.

SUBFAMILY CANTACADERINÆ.

Cantacader nocturnis n. sp.

(Plate XXXII, figure 1.)

Head elongate, narrowed in front, armed above with four slightly curved porrect spines; antenniferous tubercles produced into a spine on each side; bucculæ prominent, converging and touching beyond head; the rostrum reaches to the second abdominal segment; antennæ slender, segment I stouter and half as long again as the second; III long and filiform; IV fusiform, pilose, as long as I and II conjoined. Pronotum with five longitudinal carinæ, the central one straight, the others convexly curved on the disc; the outer pair extend about halfway to the anterior border, and are anteriorly slightly inclined towards the others; sides dilated, reticulated, with four rows of small areolæ at the widest part; anterior angles rectangular; posterior angles rounded; posterior border subangularly produced in the middle. Elytra somewhat narrowly ovate, closely reticulated; costal membrane uniseriate throughout; costal area triseriate anteriorly, narrower and biseriate in the middle, wider and quadriseriate posteriorly; the discoidal area is divided by a strongly raised longitudinal vein without lateral branches; the wings are much longer than the abdomen.

General colour pale brownish grey. Head and disc of pronotum brown, opaque; elytral membrane subhyaline, the reticulations varying from light to dark brown; a narrow blackish line on the inner margin of clavus, continuing on the inner margin of discoidal area as far as the intersection of the longitudinal vein; a pale spot at the apex of the clavus; dark reticulations on the costal membrane and area about the middle; abdomen beneath pale ochraceous with a brown longitudinal stripe along the spiracles at each side. Legs and antennæ pale flavous. Eyes reddish black. Length 4 mm.; breadth 1.375 mm.

Holotype.—Brisbane, Queensland (H. Hacker), February. Taken at light. *He. 3360*.

Paratypes.—Same data, and Brisbane (L. Franzen). At light.

The above species of *Cantacader* is more typical of the genus than any previously described from Australia. It belongs to Distant's section A. Short lateral pronotal carinæ well separated from adjoining carinæ. Its shape resembles that of *C. quinquecostatus* Fieb as figured in Fauna British India II, p. 124 1904, but the costal area is narrower, with fewer rows of areolæ.

SUBFAMILY TINGITINÆ.

Tigava unicarinata n. sp.

(Plate XXXII, figure 2.)

Elongate and slender. Head smooth, nearly as long as wide, armed with five spines: two basally at sides depressed, parallel, nearly reaching to the base of antennæ; between these anteriorly are three shorter semi-erect spines in a triangle, the anterior pair slightly divergent; antennal segment I four times longer than the second, III very long and slender, four and a-half times longer than the first; IV about as long as the first, fusiform and clothed with short hairs; rostral sulcus circular behind; the rostrum reaches halfway between the anterior and intermediate coxæ. Pronotum coarsely but shallowly punctate, reticulate on the posterior angle which is long and acutely pointed; anterior margin truncate; lateral margins anteriorly narrowly carinate; median earina pereurent; lateral carinæ absent; disc moderately convex. Elytra long, constricted slightly beyond the middle, widening and rounded posteriorly; the areolæ are small and rounded, slightly larger on the sutural area apically; costal membrane very narrow, earina-like; costal area biseriata, triseriate at apex of discoidal area; discoidal area with about seven irregular rows of small areolæ; wings much longer than the abdomen.

General colour pale yellowish brown with darker brown markings. Head testaceous brown, the three anterior spines concolorous; the basal pair, pronotal carina, lateral pronotal margins, a longitudinal stripe on disc at each side of the median earina, the posterior angle apically and the bucculæ, whitish; the inner anterior discoidal border, a narrow interrupted fascia at apex of discoidal area, and a large triangular suffusion on the sutural area reaching to the outer border apically, reddish brown; antennal segment I, orange; segment IV, black; segments II and III, and the legs, testaceous; eyes ruby. Length 1.125 mm.; breadth .875 mm.

Holotype.—Gold Creek, Q., May (H. Haeker). *No.* 3361.

Urentius sarinæ n. sp.

(Plate XXXII, figure 3.)

Head small, armed with five slender spines, two basally at sides, one submedial, and two in front; antennæ rather short, thinly setose and widely separated at the base; segments I and II about the same length, short and stout, moniliform; III cylindrical, twice as long as the fourth; IV longer than the first and second conjoined, swollen towards the apex. Pronotum broad, reticulated; tricarinate on the posterior angle; disc moderately convex, with strong irregular carinations enclosing three lateral foveate areas; the inner boundaries to these areas form fairly straight carinæ, subparallel to the median carina; all the carinæ, also the lateral margins of pronotum and elytra, are armed with long slender spines; hood small, sharply earinate above and projecting over the base of head. Elytra sinuately curved outwards from the base to their greatest width; sides nearly straight and narrowed posteriorly; the discoidal area is obliquely divided by a branch from the outer margin; costal area biareolate, the areolæ small, about the same size as those in the discoidal area; costal membrane mostly biareolate, but uniareolate towards the apex, the areolæ rather large.

General colour pale ochraceous brown; a few spines and nervelets crossing the discoidal area at the middle, a few at the apex, and the base of the posterior angle narrowly, fuscous; head, body beneath and the tarsal claws, black; the

femora, basal and apical antennal segments, brownish testaceous; third segment and the tibiæ, testaceous. Length 2 mm.; breadth .875 mm.

Holotype.—Sarina, North Queensland (J. H. Smith). *He.* 3362.

Paratype.—Same data, in Department of Agriculture.

There are five head spines on this species, but the basal pair are not easily seen unless the head is examined with a compound microscope. Distant mentions three head spines in his generic description. It is similar in appearance to *U. echinus* Dist., but differs in the shape of the pronotal foveate areas, and in possessing uniseriate areolæ on the costal membrane towards the apex of the elytra.

ESOCAMPYLIA n. gen.

Body elongate-ovate, with strongly impressed punctiform areolæ, the areoles mostly circular.

Head rather large with five depressed forwardly directed spines, the basal pair extend to the base of antennæ, the anterior pair converge and touch between the antennæ, extending to the second segment; antennæ short and moderately stout; segment I cylindrical, slightly stouter and half as long again as the second; III filiform, three times as long as the fourth; IV clavate; bucculæ closed in front, rather wide, cellular, projecting slightly beyond the head, viewed from the side, anteriorly sharply rounded; eyes not prominent. Pronotum slightly convex on disc and strongly depressed behind; tricarinate, the lateral carinæ are weakly developed on the disc, stronger anteriorly and apically bent outwards; sides nearly straight, narrowly carinate anteriorly; collum cellular and slightly raised dorsally; vesicle obsolete, represented by a backward extension of the collum; metasternal orifices not present; the rostrum reaches half-way between the anterior and intermediate coxæ. Elytra a little longer than the abdomen, sides smoothly rounded and narrowed posteriorly; convex, with moderately large punctiform areolæ: the carina bounding the inner side of discoidal area is well developed and extends to the apex of the elytra, the lateral carinæ are absent; the sides are convexly curved, the inner areolæ on the discoidal area are larger than the outer ones, and in some specimens the outer boundary is just discernible as a smooth line. Legs moderately long and stout.

Type.—*E. incarinata* n. sp.

This genus appears to be allied to *Hesperotingis* Parshley and *Alveotingis* O. & D. It differs from the former in the absence of lateral carinæ to the elytra, and from the latter genus in the structure of the antennæ, and the deflexed costal margin which is not visible from above.

Esocampylia incarinata n. sp.

(Plate XXXII, figure 4.)

General colour yellowish brown.

Head including eyes, two basal antennal segments, a transverse fascia at base of collum, and the coxæ, ferruginous; tarsi, claws, and antennal segment IV., black; antennal segment III and legs, pale testaceous brown; head spines and carinæ whitish testaceous; pronotal disc and the abdomen beneath, reddish brown. Structural characters as in generic description. Length 2.25 mm.; breadth .75 mm.

Holotype.—Blaekbutt Range, Q., November (H. Hacker). *He.* 3363.

Paratypes.—Sydney, N. S. Wales (A. M. Lea).

***Physatochila biseriata* n. sp.**

(Plate XXXIII, figure 5.)

Head armed with two short adpressed spines basally at sides, a median (generally darker) spine, and two in front, close together, the three latter shorter and semi-erect; antennæ moderately long, subcontiguous at the base, segment II slightly shorter than the first, both short; III long and filiform; IV clavate, slightly pubescent, about as long as the first and second conjoined; bucculæ rather prominent, finely reticulate, closed anteriorly, from side view rectangular in front; the rostrum reaches to the posterior coxæ. Pronotum tricarinate, the anterior margin slightly sinuate, about the same width as the head across eyes; vesicle low, areolate, keeled dorsally, from side view slightly convexly curved; paranota biseriata areolate, adpressed to sides; disc moderately convex, finely and closely punctate; posterior angle with somewhat circular areolæ. Elytra ovate, broadest at the middle, smoothly rounded posteriorly; costal membrane biseriata, the outer row somewhat larger than the inner; triseriate in some specimens opposite the apex of discoidal area; costal area biseriata, discoidal area rather large with six rows of areolæ, the outer boundary sinuate; the areolæ in all the areas are rather small and circular.

General colour dull brown. Pronotum, sutural area, and an obscure transverse elytral fascia, fuscous; head including eyes, antennal segment IV, and a nitid spot on each side at base of collum, black; pronotal and elytral carinæ, sordid whitish mottled with brown; legs and antennæ testaceous brown, segments I and II slightly darker than III; underside dark brownish black. Length 3.125 mm.; breadth 1.3 mm.

Holotype.—Brookfield, Q., August (H. Hacker). *He.* 3364.

Paratypes.—Same data, and October (H. Hacker).

***Physatochila uniseriata* n. sp.**

(Plate XXXIII, figure 7.)

Head spines similar to those of *P. biseriata*; the antennal segments are also similar; the rostrum reaches to the intermediate coxæ. Pronotum narrowed and truncate anteriorly, the vesicle obsolete, but collum reticulate and slightly raised, from side view declivous towards the anterior margin; disc finely punctate; posterior angle reticulated; lateral angles rounded, less prominent than in the previous species; paranota biseriata areolate, adpressed, the areolæ moderately large. Elytra with strong carinæ bounding areas; costal membrane narrow, uniseriate throughout; costal area biseriata; discoidal area with 5-6 irregular rows of small rounded areolæ.

General colour pale whitish ochraceous with a suffused fuscous fascia across the middle of the elytra occupying all the discoidal area except the extremities, but generally paler centrally; an obscure fuscous streak on each side of the sutural area, extending from base; pronotal carinæ pale at each extremity, concolorous on the disc which is ochraceous brown; a nitid spot on each side at the base of collum, in which the lateral carinæ terminate, head, antennal segment IV and the mesosternum, black; collum, paranota, bucculæ, pale ochraceous; legs, antennæ, and the abdomen beneath brownish ochraceous. Length 3 mm.; breadth 1.125 mm.

Holotype and Allotype.—Mount Lofty Ranges, South Australia (N. B. Tindale). In South Australian Museum.

Paratypes.—Myponga, S.A. (A. H. Elston). Beverley, W.A. (F. H. du Boulay). Melrose, S.A.; Port Lincoln, S.A.; Sydney, N.S.W. (A. M. Lea). *He.* 3371.

The colouration is brighter, and the costal membrane is narrower, than in *P. biseriata*.

***Physatochila irregularis* n. sp.**

(Plate XXXIII, figure 6.)

Head armed with two short adpressed spines basally at sides, a median (generally dark) tubercle-like spine, and two in front close together, the three latter semi-erect; antennae moderately long, subcontiguous at the base, segment II slightly shorter than the first, both short; III long and filiform; IV clavate, slightly pubescent, about as long as the first and second conjoined; bucculae rather prominent, finely reticulate, closed, from side view rectangular in front; the rostrum reaches to the intermediate coxae. Pronotum tricarinate, anteriorly slightly narrower than the width across eyes; pronotal vesicle low, arcuate, sharply keeled dorsally, from side view slightly convexly curved above; paranota two rows reticulate, adpressed to sides; disc moderately convex, finely and closely punctate; posterior angle with small circular areolae. Elytra ovate, broadest at the middle; costal membrane mostly biseriata, uniseriate at the middle, with moderate sized areolae, costal area biseriata; discoidal area rather large with about seven irregular rows of small punctiform areolae at the widest part; wings almost as long as the elytra.

General colour brownish testaceous. Head, base of collum triangularly on each side, mesosternum and antennal segment IV except the extreme base, black; head spines, pronotal vesicle, and the posterior angle, flavous; disc brownish or reddish yellow, pronotal carinae concolorous; abdomen beneath and the legs ochraceous brown. Length 3.25 mm.; breadth 1.375 mm.

Holotype.—Stanthorpe, Queensland, January (H. Hacker). *He.* 3365.

Paratypes.—Same data.

Differing chiefly from the two previous species in the absence of a transverse elytral fascia; also a slightly more developed pronotal vesicle and the costal membrane biseriata, uniseriate in the middle.

***Tingis (Tingis) drakei* n. sp.**

(Plate XXXIII, figure 8.)

Ovate, moderately broad, glabrous.

Head armed with five porrect spines, two basally at sides, each as long as an eye, a shorter medial spine and two in front converging between antennae, reaching half the length of the first segment; antenniferous tubercles somewhat prominent, rounded; antennal segment I stouter and half as long again as II; III filiform three and a-half times the length of fourth; IV pilose and slightly swollen; the rostrum reaches to the intermediate coxae. Pronotum with fine dense punctures; disc moderately convex, tricarinate, the median carina pereurrent, slightly more elevated, uniseriate areolate; collum rather long, wider than the head, the anterior margin bisinuate; hood small, areolate, viewed laterally almost straight above, projecting in the middle over the base of head; paranota prominent at anterior angles, ampliate

in front, somewhat recurved behind, biseriate areolate, the outer margin almost straight, rounded posteriorly; posterior angle rather long, acutely pointed, areolate. Elytra much longer than the abdomen, convexly curved anteriorly, widest before the middle, concavely sinuate beyond and rounded posteriorly; costal membrane wide, composed of three rows of large somewhat irregular areolæ, posteriorly reduced to one row; costal area declivous, with three rows of small areolæ; discoidal area widest at the middle with about eight rows of moderately small areolæ; sutural area with large areolæ over the greater part, becoming smaller towards the base.

General colour pale luteous; hood, paranota, head spines, and bucculæ creamy white; antennæ except segment IV, legs, and abdomen, testaceous; antennal segment IV except basally, metasternum and the tip of rostrum, black; a spot on median carina in the centre of disc, a few transverse lines on costal membrane, a diffuse spot at apex of sutural area, and a few fine irregular lines on the posterior angle, discoidal and sutural areas, brown. Eyes ruby. Length 3.375 mm.; breadth 1.375 mm.

Holotype.—South Pine River, January (H. Hacker). *He.* 3366.

Paratypes.—Nanango District, March; Mount Mee, September; Gold Creek, November; Mt. Tambourine, January; South Pine River, October (H. Hacker). Mt. Tambourine (A. M. Lea).

This species is dedicated to Carl J. Drake, who kindly indicated to me the genus to which it is assigned.

Tingis (Tingis) angulata n. sp.

(Plate XXXIV, figure 9.)

Head armed with five slender spines; two basally at sides curving downward, two anteriorly porrect and contiguous, extending between the antennæ, and one medially semi-erect; antennæ moderately long, slender, segment I slightly longer and stouter than II, both cylindrical; III slender, filiform; IV swollen towards apex, as long as I and II conjoined; bucculæ rather wide, cellular, apically somewhat angular and prominent. Pronotum strongly convex and finely cellular on disc, triearinate, the carinæ uniseriate, more strongly raised on the disc where they are biseriate areolate; collum rather deep, cellular; anterior vesicle very slightly developed, truncate in front, with a dorsal erect spine on each side of the median carina; paranota narrow anteriorly, with a lateral slender spine; wider and biseriate behind with two long spines, one anterior and one posterior to the lateral angles; posterior angle acute and reticulated. Elytra longer than the abdomen, lateral margins with several slight angular projections; costal membrane uniseriate, the areolæ rather large, mostly tetragonal; sometimes a few double cells opposite the apex of discoidal area; the areolæ on elytral areas are about the same size, but are larger towards the apex of the sutural area.

General colour whitish ochraceous; a spot on the carina in the middle of disc; a fascia about middle of elytra darker at sides, wider and paler on discoidal area; a suffusion on sutural area, and on posterior angle of pronotum, brown; head, rostrum, mesosternum, and coxæ, testaceous-brown; eyes, antennal segment IV, and tarsi, black; antennal segments I, II, III, legs, and body beneath, flavo-testaceous; apex of the bucculæ and the wings, dusky. Length 2.25 mm.; breadth .625 mm.

Holotype.—Upper Brookfield, Q., March (H. Hacker). *He.* 3367.

This species closely resembles *T. spinicollis* Horv. in the structure of the head and paranotal spines, also in colour. It differs, however, in the angulations on the lateral margins of the elytra. These vary somewhat in development; in some specimens they are just discernible, while in others they are very distinct and spinose.

Tingis (Tingis) insularis n. sp.

(Plate XXXIV, figure 10.)

Very similar in general appearance to *T. angulata*, but differing in the following respects:—Costal membrane wider with two rows of areolæ; lateral margins of elytra and the carinæ, minutely denticulated, the denticles bearing a fine hair; femora and tibiæ furnished with scattered erect hairs; the three paranotal spines are all anterior to the lateral angles. Colours similar to *T. angulata*, but the transverse fasciæ and other brown markings are generally paler and less defined. Length 2.625 mm.; breadth 1 mm.

Holotype.—Dunk Island, N.Q., August (F. A. Perkins). *He.* 3368.

RADINACANTHA n. gen.

Elongate-ovate, with long and slender legs and antennæ.

Head nearly as long as wide, convex above, with five long slender spines; the four outer ones directed upwards and outwards, the central spine is nearly perpendicular; bucculæ prominent, extending beyond head, rounded and closed in front, reticulated; antennæ long and slender, segments I and II moderately stout, cylindrical, the second a little shorter than the first; III very long, filiform; IV longer than the first and second conjoined, slightly swollen towards apex, and clothed with a few fine hairs; rostrum short, reaching barely halfway between the first and second pair of coxæ. Pronotum with one central carina, which is pereurrent; disc strongly convex, coarsely punctured, nitid; hood absent; collum deep, slightly raised anteriorly; paranota narrow anteriorly, obsolete posteriorly; posterior angle depressed and reticulated; rostral sulcus open behind; odoriferous orifice present. Elytra narrow, much longer than the abdomen, sides slightly sinuate; costal membrane uniseriate, areolæ tetragonal, large; costal area uniseriate, areolæ also tetragonal, increasing in size posteriorly; the discoidal area extends half the length of the elytra, and is widest before the middle, with five-six rows of small sub-circular areolæ. Legs very long and slender, femora slender basally, slightly swollen towards the apex.

Type.—*R. reticulata* n. sp.

This genus is chiefly distinguished by its outwardly directed head spines, single pronotal carina, uniseriate costal membrane, and costal area.

Radinacantha reticulata n. sp.

(Plate XXXIV, figure 11.)

Head sparsely punctured, nitid, armed with five long slender spines, the four outer ones extending outwardly beyond the sides of the head. Pronotum with distinct uniseriate paranota, which are convexly curved from the base of the collum and disappear at about the middle of the lateral margins; the pronotal carina is also uniseriate, areolate.

Head including eyes, antennal segment IV, tarsi, mesosternum, and abdomen. black; pronotal disc, castaneous, with a darker, nitid, transverse fascia anteriorly; antennæ excepting segment IV, head spines, pronotal carina, legs, reticulations on the elytra, and posterior angle of pronotum, flavous; elytral membrane hyaline, iridescent; paranota, anterior margin of collum, and the rostral sulcus, white; bucculæ brownish. Length 3 mm.; breadth 1 mm.

Holotype.—Samsonvale, Q., April (H. Haeker). *He.* 3369.

Paratypes.—Same data, and August, September; Bribie Island, January (H. Haeker).

***Radinacantha tasmanica* n. sp.**

(Plate XXXIV, figure 12.)

Head somewhat globular above, armed with five spines which do not extend outwards beyond the sides of head; the pronotal carina is less elevated than in *R. reticulata*, and the paranota are obsolete, represented by a short linear carina anteriorly; the tibiæ are apically blackish, and the head spines are basally black; in other characters and in size, this species is similar to the preceding one.

Holotype.—Strahan, Tasmania (Lea and Carter). In South Australian Museum.

Paratype.—Same data. *He.* 3370.

***Leptobyrsa magnifica* n. sp.**

(Plate XXXV, figure 13.)

Head smooth, armed with five long slender spines; two basally at the sides sub-parallel; three in front converging between the antennæ and projecting slightly beyond the first segment; antennæ moderately long, clothed with rather long fine hairs; segment I cylindrical, twice as long as the second; III slightly more than twice the length of the fourth; IV slender, longer than the first and second segments conjoined; the rostrum extends to the posterior coxæ. Pronotum finely punctured, tricarinate, the median carina is arcuately elevated, with a row of very large transverse areolæ; vesicle high, longer than wide, with large reticulations; from side view the anterior margin is straight, inclining obliquely over the head; the top of the vesicle is strongly arcuate; posterior angle short, broadly rounded behind, leaving a triangular area exposed between the elytra; paranota very broad and furnished with a row of small marginal spines; the anterior margin is sinuate and roundly produced beyond the head; the sides are convexly curved and extend to behind the lateral angles; they contain five irregular rows of areolæ which increase in size towards the outer margin. Elytra very broad and furnished with a row of small marginal spines; the areolæ are large, convex, and iridescent; tumid elevation well developed; the discoidal area is wide, convex on the outer side and centrally depressed towards the inner side; the costal area is strongly sinuate.

General colour pale flavous; head and pronotum, testaceous brown, the punctures slightly darker; a spot in the centre of discoidal areas and at the base of sutural area; a suffusion on the elytra posteriorly, following the costal area, becoming wider apically, fuscous; the reticulations over these spots are blackish; eyes and abdomen, black; legs, head spines, and the antennæ, pale flavous, excepting the apical third of segment IV, which is fuscous. Length 4 mm.; breadth 3 mm.

Holotype.—Mt. Tambourine, Q., January (H. Hacker). *He.* 3372.

Paratypes.—Mt. Tambourine, November, January; Brookfield, November, March; Nanango District, November (H. Hacker).

Leptobyrsa major n. sp.

(Plate XXXV, figure 14.)

Similar in shape to *L. magnifica*, but larger and without any fuscous markings.

Head spines and antennæ as in *L. magnifica*: the rostrum reaches to the intermediate coxæ. Pronotum very finely punctured and thinly pilose; the median carina is foliaceous, with large oblong areolæ; paranota very large, broadly rounded anteriorly, with seven rows of areolæ, which are small near the base, increasing in size towards the margin. Elytra more widely rounded at the sides and posteriorly, than in *L. magnifica*; the areolæ are also more numerous and slightly smaller; discoidal area very wide, swollen towards the outer margin, with a small transverse depression at about the middle: costal membrane with a few transverse rows of reticulations slightly stouter than the others, forming horizontal lines: the membrane between the reticulations is convex, hyaline, and iridescent.

General colour pale ochraceous; eyes, antennal segment IV except basally, claws, and mesosternum, black; abdomen beneath brown, becoming paler apically; pronotum tawny; reticulations on pronotum and elytra whitish ochraceous, with some slightly darker on vesicle, margins of paranota and centre of the discoidal area; legs and antennæ, flavous. Length 5 mm.; breadth 3.875 mm.

Holotype.—Blackbutt, Queensland, November (H. Hacker). Unique. *He.* 3373.

Furcilliger tricolor n. sp.

(Text-figure 1.)

Head armed with five spines, the basal pair longest, appressed to head and curving inwardly: the central spine semi-erect, and the anterior pair porrect, in close contact, between the antennæ; buccinæ closed and from side view, angular in front; the rostrum reaches to the intermediate coxæ; antennal segment I short and cylindrical; II slightly shorter than the first; III long and filiform, three times longer than the fourth. Pronotum in front about the same width as head, the anterior margin slightly sinuate and touching the base of eyes; pronotal vesicle small and coarsely reticulated, nearly vertical in front and horizontal above, transversely ridged anteriorly, with a small tubercle at each end; paranota very large, rugose, covering most of the disc, composed of large deeply impressed areolæ, the reticulations coarse and uneven; they are elevated and longitudinally ridged on each side of the disc, appearing, when viewed from the front, as two pyramidal elevations, higher than the median carina which is uniseriate, and lies between them; the lateral carinæ are uniseriate, widely separated on the posterior angle, converging towards the disc where they are apposed to the margins of the paranota; posterior angle reticulate and acutely pointed. Elytra broad, flat, and extending beyond the abdomen; moderately amplified from base to middle, then slightly narrowed, apex widely rounded; the areas are sharply defined; costal membrane biseriata, areolæ large, the outer row slightly larger than the inner; costal area declivous, biseriata, not widened or angulate at the apex of discoidal area, areolæ small.



Text-figure 1.

Photo., H. Hacker.

Colours white, testaceous, and brown. Latera, carinae posteriorly, some reticulations on pronotum anteriorly, costal membrane and carinae at the base of elytra and at the apex of discoidal area, white or pale testaceous; a transverse median fascia on the elytra, narrow at sides, widening towards the middle including most of the discoidal area, and a spot on each side near apex of elytra, fuscous; sutural area fulvous, darker basally; antennal segments I and IV, and the head spines, testaceous-brown; segments II and III, and the legs, testaceous; head, mesosternum, and the abdomen beneath, dark ferruginous. Length 2.625 mm.; breadth 1.125 mm.

Holotype.—Mount Glorious, Queensland, March (H. Hacker). *He.* 3374.

Paratypes.—Upper Brookfield, March; Mount Tambourine, January (H. Hacker).

The above species agrees fairly well with the generic characters; the forked teeth on vesicle are here represented by minute spine-like tubercles, and the minute teeth on elytra, mentioned by Horvath, are absent. These may prove later to have only specific value. *F. tricolor* also differs from *F. asperulus* Horv., in possessing more prominent pronotal angles, and pale-brown apical antennal segment.

***Sinalda tindalei* (Hacker).**

Phatnoma tindalei Hacker, Mem. Queensl. Mus. ix, pt. ii, p. 177, 1928.

In the description of this species, I noted its resemblance to *P. aethiops* Dist. and *P. testacea* Dist. In a paper by Distant* which I have recently obtained, he has placed these species in a new genus *Sinalda*. I here transfer my species also, as it agrees

* Trans. South Afr. Phil. Soc. xiv, p. 426, 1903-4.

with the characters given by Distant, i.e., "Allied to *Phatnoma* by the raised transverse lines to the discoidal and subcostal areas of the elytra, but differing by the non-dilated lateral areas of the pronotum, which are more or less convex, not spinously amplified; the elytra are also relatively narrower."

***Calotingis subopaca* (Haeker).**

Neopachycysta subopaca Haeker, Mem. Queensl. Mus. ix, pt. ii, p. 183, 1928.

Dr. Carl J. Drake drew my attention to this synonymy and kindly forwarded a copy of his genus *Calotingis* which I did not possess.

***Lasiacantha leai* (Haeker).**

Myrmecotingis leai Haeker, Mem. Queensl. Mus. ix, pt. ii, p. 182, 1928.

I am also indebted to Dr. Drake for pointing out this synonymy, with which I concur.

EXPLANATION OF PLATES.

All the figures are enlarged sixteen diameters.

PLATE XXXII.

- Fig. 1.—*Cantacader nocturnis* n. sp.
 Fig. 2.—*Tigava unicarinata* n. sp.
 Fig. 3.—*Urentius sarinæ* n. sp.
 Fig. 4.—*Esocampylia incarinata* n.g. et sp.

PLATE XXXIII.

- Fig. 5.—*Physatochila biseriata* n. sp.
 Fig. 6.—*Physatochila irregularis* n. sp.
 Fig. 7.—*Physatochila uniseriata* n. sp.
 Fig. 8.—*Tingis (Tingis) drakei* n. sp.

PLATE XXXIV.

- Fig. 9.—*Tingis (Tingis) angulata* n. sp.
 Fig. 10.—*Tingis (Tingis) insularis* n. sp.
 Fig. 11.—*Radinacantha reticulata* n.g. et sp.
 Fig. 12.—*Radinacantha tasmanica* n. sp.

PLATE XXXV

- Fig. 13.—*Leptobyrsa magnifica* n. sp.
 Fig. 14.—*Leptobyrsa major* n. sp.



Photos., H. Hacker.

AUSTRALIAN TINGITIDÆ.

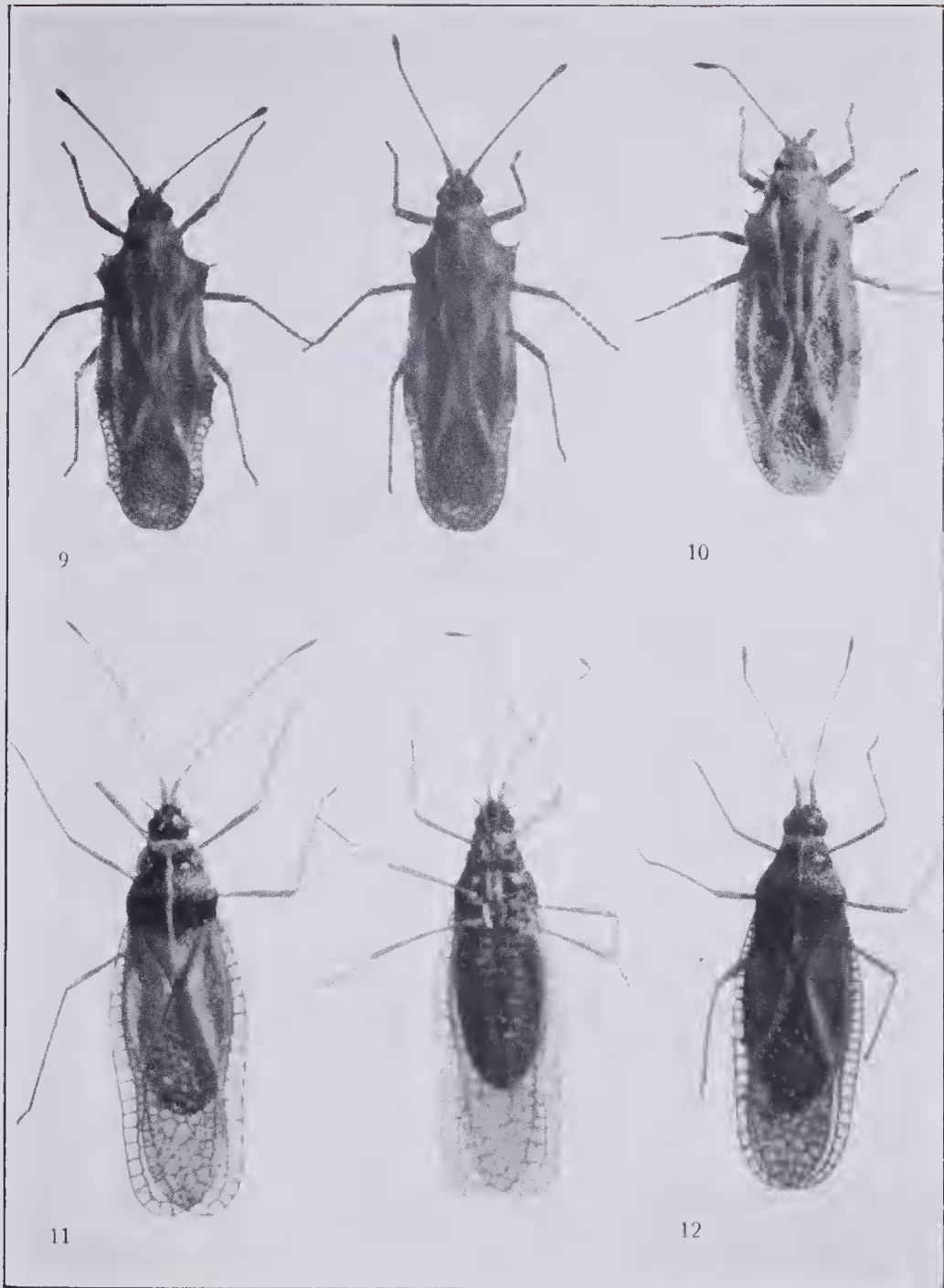
Face page 334.



AUSTRALIAN TINGITIDÆ.

Photos., H. Hacker.

Face page 334.



Photos., H. Haeker.

AUSTRALIAN TINGITIDÆ.

Face page 334.

